



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



May 12, 2014

Mr. Roger Hoffdahl
Ingredion Incorporated
P O Box 6129
Stockton, CA 95206-0129

**Re: Notice of Minor Title V Permit Modification
District Facility # N-238
Project # N-1141718**

Dear Mr. Hoffdahl:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to modify Permit to Operate (PTO) N-238-18-7 of the facility's current Title V operating permit. The proposed project is to allow the use of alternative test method "CARB 100" to measure exhaust stack NOx, CO or O2 concentrations in addition to the existing test methods.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V PTO N-238-18-8, application, and previous Title V permit. This project will be finalized after the 45-day EPA comment period.

If you have any questions, please contact Mr. Rupi Gill, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

Sayed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

Title V APPLICATION REVIEW Minor Modification

Facility Number: N-238
Facility Name: Ingredion Incorporated
Mailing Address: P O Box 6129
Stockton, CA 95206

Contact Name: Roger Hoffdahl
Phone: (209) 547-8233

Responsible Official: Juan Carlos Casillas
Title: Stockton Plant Manager

Processing Staff: Jag Kahlon
Project Number: N-1141718
Date: May 12, 2014

I. PROPOSAL

Ingredion Incorporated has proposed to amend their Title V operating permit N-238-18-7 to include an alternative test method "CARB Method 100" for measuring NO_x, CO, or O₂ concentrations in addition to the existing test methods. Note that this alternative method has been included in many gas turbine permits in the San Joaquin Valley. The proposed change does not require an Authority to Construct per District guidance in FYI-111 (7/10/07).

The purpose of this document is to identify all applicable requirements, determine if the facility will comply with the applicable requirements, and to provide the legal and factual basis for permit requirements.

II. FACILITY LOCATION

This facility is located at 1021 Industrial Drive, Stockton, California.

III. EQUIPMENT DESCRIPTION

SOLAR TURBINE INCORPORATED CENTAUR 2800 KW (ISO) CONTINUOUS DUTY INDUSTRIAL GAS TURBINE GENERATOR AND A DELTA WASTE HEAT BOILER, MODEL 3L-227, SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM

IV. SCOPE OF EPA AND PUBLIC REVIEW

The proposed project is a Minor Modification under Rule 2520 as this project does not relax existing monitoring, recordkeeping or reporting requirements. Therefore, public review is not required.

V. APPLICABLE REQUIREMENTS

Rule 2520 Federally Mandated Operating Permits (6/21/01)

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

The proposed project is to allow the use of alternative test method "CARB 100" to measure NO_x, CO or O₂ stack concentrations. The following conditions will be affected due to this project:

16. NO_x emissions (referenced as NO₂) shall be determined using EPA Method 7E, EPA Method 20 or **CARB Method 100**. [District Rules 1081 and 4703, 40 CFR 60.335(b)(1)]
17. CO emissions shall be determined using EPA Method 10, EPA Method 10B, or **CARB Method 100**. [District Rules 1081 and 4703]
18. Oxygen content of the exhaust gas shall be determined using EPA Method 3, EPA Method 3A, EPA Method 20, or **CARB Method 100**. [District Rules 1081 and 4703]

VII. COMPLIANCE

In accordance with Rule 2520, 3.20, the proposed project:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source

has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include;

- a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act;
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
 6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs (Appendix III) ;
2. The source's suggested draft permit (Appendix I); and
3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used (Appendix II).

Compliance is expected with this Rule.

APPENDICES

Appendix I: Proposed Title V Operating Permit
Appendix II: Permit Application
Appendix III: Emissions Change
Appendix IV: Previous Title V Operating Permit

Appendix I
Proposed Title V Operating Permit

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-238-18-8

EXPIRATION DATE: 03/31/2019

EQUIPMENT DESCRIPTION:

MODIFICATION OF SOLAR TURBINE INCORPORATED CENTAUR 2800 KW (ISO) CONTINUOUS DUTY INDUSTRIAL GAS TURBINE GENERATOR AND A DELTA WASTE HEAT BOILER, MODEL 3L-227, SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM: INCLUDE AN ALTERNATIVE TEST METHOD "CARB METHOD 100" FOR MEASURING NOX, CO OR O2 CONCENTRATIONS

PERMIT UNIT REQUIREMENTS

1. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. The water to fuel injection ratio shall be maintained at a minimum of 0.57 by weight. [District NSR Rule and District Rule 4703] Federally Enforceable Through Title V Permit
3. The permittee shall maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. [District Rule 4001 and District Rule 4703] Federally Enforceable Through Title V Permit
4. A flowmeter shall be operated at the water injection system's water inlet to the turbine. The flow meter shall be equipped with flow totalizer. [District Rule 2201 and District Rule 4703] Federally Enforceable Through Title V Permit
5. The turbine shall only be fired on natural gas with a sulfur content not exceeding 1.0 grains of sulfur compounds (as S) per 100 dry standard cubic feet of natural gas fuel. [District Rule 2201, 40 CFR 60.333(a), and San Joaquin County Rule 407] Federally Enforceable Through Title V Permit
6. Emissions from the gas turbine shall not exceed any of the following limits: 120 ppmvd CO @15% O2; 0.0070 lb-PM10/MMBtu; 0.0021 lb-VOC/MMBtu (referenced as methane); and 0.00285 lb-SOx/MMBtu (referenced as SO2). The CO emission limit is based on a 3-hour average. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
7. Ammonia slip (NH3) emissions shall not exceed 5 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Except during startup and shutdown periods, emissions from the gas turbine system shall not exceed 9 ppmvd NOx @ 15% O2. [District Rules 2201 and 4703, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
9. During startup and shutdown periods, emissions from the gas turbine system shall not exceed 35 ppmvd NOx @ 15% O2 once the turbine generator has reached operating speed. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
10. The duration of each startup and each shutdown shall not exceed 2 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
11. The total combined duration of startups and shutdowns shall not exceed 8 hours in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its SCR operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown shall be defined as the period of time during which a unit is taken from an operational to non-operational status as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
13. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown periods. [District Rule 4703] Federally Enforceable Through Title V Permit
14. Source testing to demonstrate compliance with the NO_x, CO, and NH₃ emission limits of the gas turbine system shall be conducted at least once every 12 months. The 3-run tests shall be performed at four evenly spaced load points in the normal operating range of the gas turbine. [40 CFR 60.335(a), (b)(2) and District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. NO_x emissions (referenced as NO₂) shall be determined using EPA Method 7E, EPA Method 20 or CARB Method 100. [District Rules 1081 and 4703, 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit
17. CO emissions shall be determined using EPA Method 10, EPA Method 10B, or CARB Method 100. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
18. Oxygen content of the exhaust gas shall be determined using EPA Method 3, EPA Method 3A, EPA Method 20, or CARB Method 100. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
19. Ammonia (NH₃) emissions shall be determined using BAAQMD Method ST-1B. [District Rules 1081, 2201, and 4102] Federally Enforceable Through Title V Permit
20. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
22. If this unit is not fired on PUC-regulated natural gas, the sulfur content of each natural gas fuel source shall be tested weekly to determine compliance with the fuel sulfur content limit. Upon the completion of eight consecutive weekly tests that demonstrate compliance with the fuel sulfur content limit, the sulfur content testing may be conducted on a monthly schedule. If any test shows non-compliance with the fuel sulfur content limit while on a monthly testing schedule, the testing schedule shall return to weekly testing until eight consecutive weeks demonstrate compliance with the fuel sulfur content limit. [District Rule 2201 and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
23. {2261} If this unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
24. If this unit is fired on PUC-regulated natural gas, then the owner or operator shall maintain copies of the natural gas bills on file. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. Ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

26. During initial performance testing, the ammonia injection rate shall be monitored concurrently with each testing run to establish acceptable values and ranges that provide a reasonable assurance of ongoing compliance with the emissions limitations stated in this permit. The minimum ammonia injection rate(s) demonstrated during the initial NOx source test to result in compliance with the NOx emission limits shall be imposed as a condition in the Permit to Operate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
27. If the ammonia injection rate is less than the minimum ammonia injection rate demonstrated during the initial compliance test, the permittee shall return the ammonia injection rate above the minimum ammonia injection rate established during compliance testing as soon as possible, but no longer than eight hours after detection. If the ammonia injection rate is not returned above the minimum ammonia injection rate established during compliance testing within eight hours, the permittee shall notify the District within the following one hour and conduct a source test within 60 days of the first exceedance to demonstrate compliance with the applicable emission limits at the reduced ammonia injection rate. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
28. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 weekly using a portable emissions monitor that meets District specifications. If compliance with the NOx and CO emissions is demonstrated for eight consecutive weeks, then the monitoring frequency will be reduced to monthly. If deviations are observed in two consecutive months, monitoring shall revert to weekly until eight consecutive weeks show no deviations. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within one day of restarting the unit unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the week if on a weekly monitoring schedule. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
29. If the NOx and/or CO concentrations, as measured by the permittee with a portable emissions monitor, exceed the permitted emission limits, the permittee shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than eight hours after detection. If the permittee's portable emission monitor readings continue to exceed the permitted emissions limits after eight hours, the permittee shall notify the District within the following one hour, and conduct a certified source test within 60 days to demonstrate compliance with the permitted emissions limits. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
30. Permittee shall determine and record the ammonia slip monthly using a draeger tube, or equivalent ammonia detection device. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
31. The owner or operator shall submit a report of NOx excess emissions and periods of monitor downtime to the APCO semi-annually, and this report shall be postmarked by the 30th day following the end of each 6-month period. [40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit
32. NOx excess emissions shall be defined as any unit operating hour for which the average water to fuel injection rate, as measured by the continuous monitoring system, falls below the water to fuel ratio specified in this permit, including during startup and shutdown. NOx excess emissions shall also be defined as any 4-hour rolling unit operating hour in which the average ammonia injection rate falls below the minimum ammonia injection rate(s) specified in this permit, not including startup or shutdown. NOx monitor downtime shall be defined as any operating hour during which the water to fuel ratio or ammonia injection rate is either not recorded or is invalid. [40 CFR 60.334(j)(1)] Federally Enforceable Through Title V Permit
33. Permittee shall maintain daily records of the occurrence and duration of each startup or shutdown and the total cumulative duration of all startups and shutdowns. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

34. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used. [District Rule 4703 and 40 CFR 60.332(a) and (b)] Federally Enforceable Through Title V Permit
35. The owner or operator of the stationary gas turbine system shall maintain records of the following: (1) Water to fuel injection continuous monitoring system measurements, (2) Ammonia injection rate monitoring system measurements, and (3) Periodic NO_x, CO, and O₂ portable emissions monitor measurements. [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
36. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 2520 and 4703] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: San Joaquin County Rule 108.1 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: San Joaquin Country Rule 407 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b); District Rule 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Appendix II
Permit Application


San Joaquin Valley Air Pollution Control District

www.valleyair.org

COPY

Permit Application For:

☒ ADMINISTRATIVE AMENDMENT ☐ MINOR MODIFICATION ☐ SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: INGREDION INCORPORATED	
2. MAILING ADDRESS: STREET/P.O. BOX: PO BOX 6129 CITY: Stockton STATE: CA 9-DIGIT ZIP CODE: 95206	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: 1021 Industrial Drive CITY: Stockton NE ¼ SECTION 24 TOWNSHIP 1N RANGE 6E	INSTALLATION DATE: N/A Administrative permit condition addition only.
4. GENERAL NATURE OF BUSINESS: CORN WET MILLING	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) Modify District PTO N 238-18-16, GAS TURBINE Per District notice, add CARB Method 100 to permit condition as an acceptable testing method.	
6. TYPE OR PRINT NAME OF APPLICANT: Juan Carlos Casillas	TITLE OF APPLICANT: STOCKTON PLANT MANAGER
7. SIGNATURE OF APPLICANT: 	DATE: May 06, 2014 PHONE: (209) 547- 8226 FAX: (209) 982-5012 EMAIL: Juan.Casillas@cornproducts.com

For APCD Use Only:

RECEIVED DATE STAMP MAY 06 2014 SJVAPCD NORTHERN REGION	FILING FEE RECEIVED: \$ _____ CHECK#: _____
	DATE PAID: _____
	PROJECT NO: _____ FACILITY ID: _____

**San Joaquin Valley
Unified Air Pollution Control District**

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)


- ☐ SIGNIFICANT PERMIT MODIFICATION ☒ ADMINISTRATIVE
☐ MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: INGREDION INCORPORATED	FACILITY ID: N-238
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: INGREDION INCORPORATED	
3. Agent to the Owner: Jaun Carlos Casillas	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- ☒ Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- ☒ Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the foregoing is correct and true:



Signature of Responsible Official

May 06, 2014

Date

Juan Carlos Casillas

Name of Responsible Official (please print)

Stockton Plant Manager

Title of Responsible Official (please print)

Appendix III Emissions Change

Emissions Change

The proposed project does not result any changes to the criteria pollutant emissions.

Appendix IV
Previous Title V Operating Permit

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-238-18-7

EXPIRATION DATE: 03/31/2019

EQUIPMENT DESCRIPTION:

SOLAR TURBINE INCORPORATED CENTAUR 2800 KW (ISO) CONTINUOUS DUTY INDUSTRIAL GAS TURBINE GENERATOR AND A DELTA WASTE HEAT BOILER, MODEL 3L-227, SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. The water to fuel injection ratio shall be maintained at a minimum of 0.57 by weight. [District NSR Rule and District Rule 4703] Federally Enforceable Through Title V Permit
3. The permittee shall maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. [District Rule 4001 and District Rule 4703] Federally Enforceable Through Title V Permit
4. A flowmeter shall be operated at the water injection system's water inlet to the turbine. The flow meter shall be equipped with flow totalizer. [District Rule 2201 and District Rule 4703] Federally Enforceable Through Title V Permit
5. The turbine shall only be fired on natural gas with a sulfur content not exceeding 1.0 grains of sulfur compounds (as S) per 100 dry standard cubic feet of natural gas fuel. [District Rule 2201, 40 CFR 60.333(a), and San Joaquin County Rule 407] Federally Enforceable Through Title V Permit
6. Emissions from the gas turbine shall not exceed any of the following limits: 120 ppmvd CO @15% O₂; 0.0070 lb-PM₁₀/MMBtu; 0.0021 lb-VOC/MMBtu (referenced as methane); and 0.00285 lb-SO_x/MMBtu (referenced as SO₂). The CO emission limit is based on a 3-hour average. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
7. Ammonia slip (NH₃) emissions shall not exceed 5 ppmvd @ 15% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Except during startup and shutdown periods, emissions from the gas turbine system shall not exceed 9 ppmvd NO_x @ 15% O₂. [District Rules 2201 and 4703, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
9. During startup and shutdown periods, emissions from the gas turbine system shall not exceed 35 ppmvd NO_x @ 15% O₂ once the turbine generator has reached operating speed. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
10. The duration of each startup and each shutdown shall not exceed 2 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
11. The total combined duration of startups and shutdowns shall not exceed 8 hours in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its SCR operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown shall be defined as the period of time during which a unit is taken from an operational to non-operational status as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
13. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown periods. [District Rule 4703] Federally Enforceable Through Title V Permit
14. Source testing to demonstrate compliance with the NO_x, CO, and NH₃ emission limits of the gas turbine system shall be conducted at least once every 12 months. The 3-run tests shall be performed at four evenly spaced load points in the normal operating range of the gas turbine. [40 CFR 60.335(a), (b)(2) and District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. NO_x emissions (referenced as NO₂) shall be determined using EPA Method 7E or EPA Method 20. [District Rules 1081 and 4703, 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit
17. CO emissions shall be determined using EPA Method 10 or EPA Method 10B. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
18. Oxygen content of the exhaust gas shall be determined using EPA Method 3, EPA Method 3A, or EPA Method 20. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
19. Ammonia (NH₃) emissions shall be determined using BAAQMD Method ST-1B. [District Rules 1081, 2201, and 4102] Federally Enforceable Through Title V Permit
20. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
22. If this unit is not fired on PUC-regulated natural gas, the sulfur content of each natural gas fuel source shall be tested weekly to determine compliance with the fuel sulfur content limit. Upon the completion of eight consecutive weekly tests that demonstrate compliance with the fuel sulfur content limit, the sulfur content testing may be conducted on a monthly schedule. If any test shows non-compliance with the fuel sulfur content limit while on a monthly testing schedule, the testing schedule shall return to weekly testing until eight consecutive weeks demonstrate compliance with the fuel sulfur content limit. [District Rule 2201 and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
23. If this unit is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
24. If this unit is fired on PUC-regulated natural gas, then the owner or operator shall maintain copies of the natural gas bills on file. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. Ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

26. During initial performance testing, the ammonia injection rate shall be monitored concurrently with each testing run to establish acceptable values and ranges that provide a reasonable assurance of ongoing compliance with the emissions limitations stated in this permit. The minimum ammonia injection rate(s) demonstrated during the initial NOx source test to result in compliance with the NOx emission limits shall be imposed as a condition in the Permit to Operate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
27. If the ammonia injection rate is less than the minimum ammonia injection rate demonstrated during the initial compliance test, the permittee shall return the ammonia injection rate above the minimum ammonia injection rate established during compliance testing as soon as possible, but no longer than eight hours after detection. If the ammonia injection rate is not returned above the minimum ammonia injection rate established during compliance testing within eight hours, the permittee shall notify the District within the following one hour and conduct a source test within 60 days of the first exceedance to demonstrate compliance with the applicable emission limits at the reduced ammonia injection rate. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
28. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 weekly using a portable emissions monitor that meets District specifications. If compliance with the NOx and CO emissions is demonstrated for eight consecutive weeks, then the monitoring frequency will be reduced to monthly. If deviations are observed in two consecutive months, monitoring shall revert to weekly until eight consecutive weeks show no deviations. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within one day of restarting the unit unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the week if on a weekly monitoring schedule. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
29. If the NOx and/or CO concentrations, as measured by the permittee with a portable emissions monitor, exceed the permitted emission limits, the permittee shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than eight hours after detection. If the permittee's portable emission monitor readings continue to exceed the permitted emissions limits after eight hours, the permittee shall notify the District within the following one hour, and conduct a certified source test within 60 days to demonstrate compliance with the permitted emissions limits. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
30. Permittee shall determine and record the ammonia slip monthly using a draeger tube, or equivalent ammonia detection device. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
31. The owner or operator shall submit a report of NOx excess emissions and periods of monitor downtime to the APCO semi-annually, and this report shall be postmarked by the 30th day following the end of each 6-month period. [40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit
32. NOx excess emissions shall be defined as any unit operating hour for which the average water to fuel injection rate, as measured by the continuous monitoring system, falls below the water to fuel ratio specified in this permit, including during startup and shutdown. NOx excess emissions shall also be defined as any 4-hour rolling unit operating hour in which the average ammonia injection rate falls below the minimum ammonia injection rate(s) specified in this permit, not including startup or shutdown. NOx monitor downtime shall be defined as any operating hour during which the water to fuel ratio or ammonia injection rate is either not recorded or is invalid. [40 CFR 60.334(j)(1)] Federally Enforceable Through Title V Permit
33. Permittee shall maintain daily records of the occurrence and duration of each startup or shutdown and the total cumulative duration of all startups and shutdowns. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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34. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used. [District Rule 4703 and 40 CFR 60.332(a) and (b)] Federally Enforceable Through Title V Permit
35. The owner or operator of the stationary gas turbine system shall maintain records of the following: (1) Water to fuel injection continuous monitoring system measurements, (2) Ammonia injection rate monitoring system measurements, and (3) Periodic NOx, CO, and O2 portable emissions monitor measurements. [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
36. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 2520 and 4703] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: San Joaquin County Rule 108.1 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: San Joaquin County Rule 407 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b); District Rule 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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